FLH Standard Criteria Files

Section 10 –

Concrete Cut Wall Criteria Files

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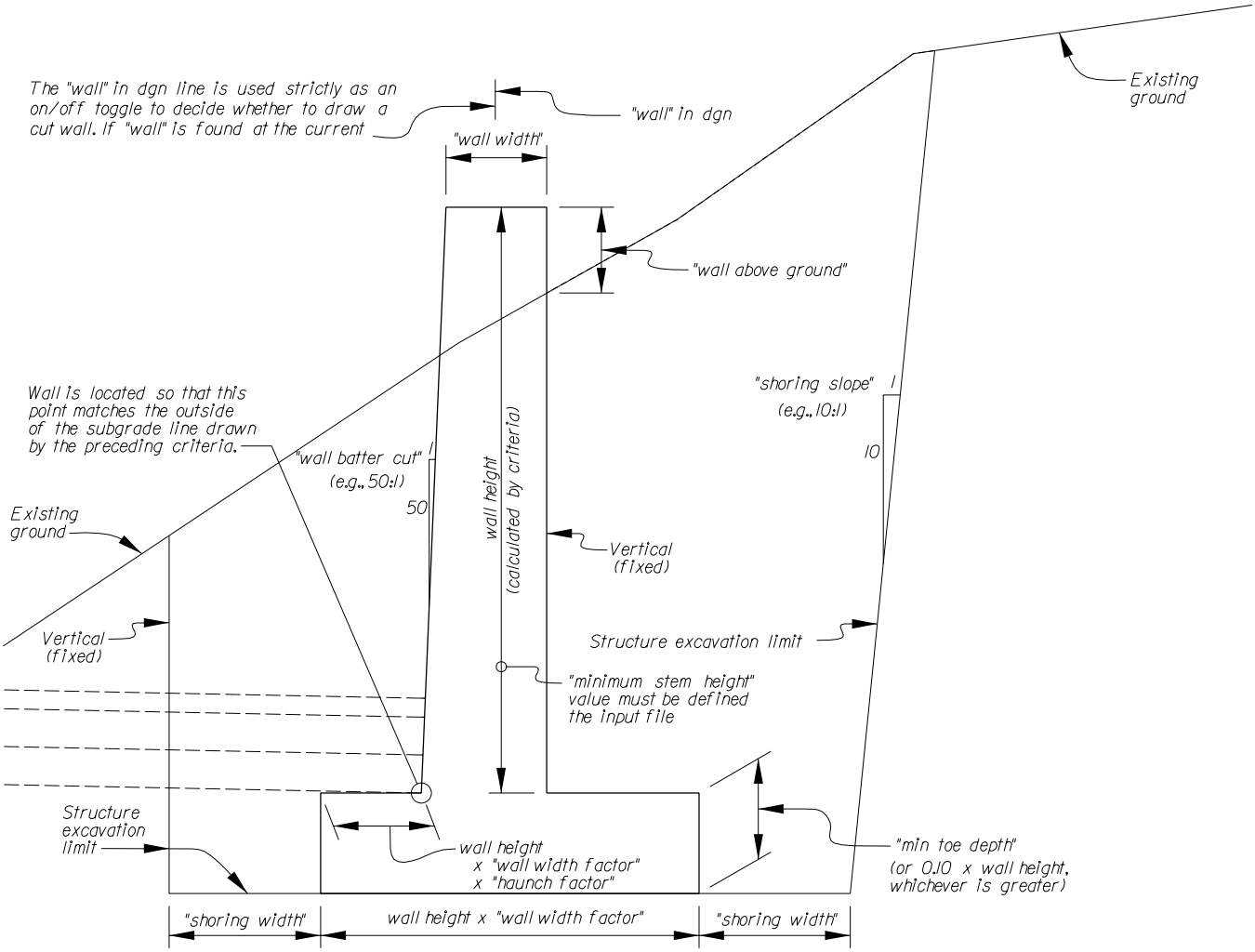
Criteria File	Elements Drawn by Criteria File
fh_walcd.x08	Cut wall plus associated excavation and backfill. Uses lines in plan view dgn file to set station ranges and side of roadway.
fh_walc9.x08	Cut wall plus associated excavation and backfill. Uses exceptions data file to set station ranges and side of roadway.

fh_walcd.x08

Draws a cantilever concrete cut wall plus associated special excavation and backfill. Station ranges and side of the roadway where the cut wall are drawn are set using line(s) drawn in a plan view dgn file. (Contrast this with fh_walc9.x08, where the station ranges and side of the roadway for the cut wall are set in the exceptions data file.)



define variables that must be assigned values in the input data file:

"wall width"
"wall above ground"
"wall batter cut" (e.g., 50:1)
"wall width factor" (e.g., 0.75)
"haunch factor"
"minimum stem height"
"shoring width"
"shoring slope" (e.g., 10:1)

fh_walcd.x08

define_dgn variables that must be assigned values in the input data file:

"wall"

Variables that must be defined in exceptions data file:

None

Notes for fh_walcd.x08:

1. The "wall" line(s) drawn in plan view dgn file are used strictly as an on/off toggle for the cut wall; they have nothing to do with the offset of the wall from the roadway centerline. Note #3 outlines how the cut wall is located relative to the other proposed cross-section elements.

2. The "wall" lines in plan view dgn file must be drawn outside the shapes and any widening or shoulders; if they aren't the criteria won't find them and no cut wall will be drawn. Other than that, the offset of the lines from the roadway centerline doesn't matter.

3. The elevation of the base of the cut wall and the offset of the cut wall from the roadway centerline are both using the following rule: the point on the cut wall where the inside face of the wall stem intersects the top of the wall toe is set to coincide with the outside point of the bottom base course layer. (See the diagram above.)

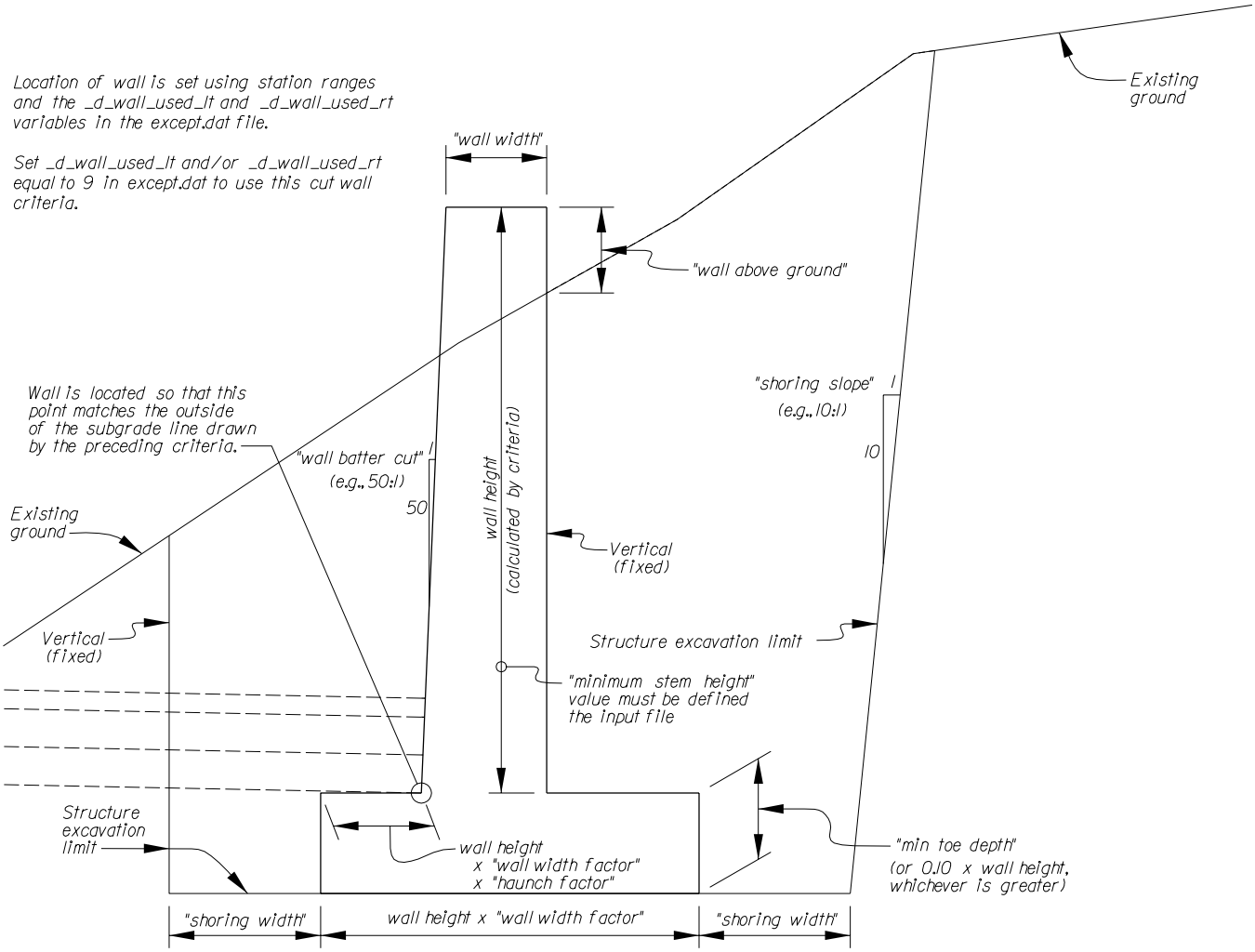
4. fh_walcd.x08 draws additional "earthwork" lines beyond what is required to simply define the wall geometry. These additional lines allow the earthwork procedure to calculate separate quantities for structure excavation and special wall backfill.

5. The standard level symbology for the "wall" define_dgn lines is: lv=?? co=??.

6. fh_walcd.x08 will always draw a wall with "minimum stem height", even if the wall footing is on fill.

fh_walc9.x08

Draws a cantilever concrete cut wall plus associated special excavation and backfill. Station ranges and side of the roadway where the cut wall is drawn are set in the exceptions data file.
(Contrast this with fh_walcd.x08, where the station ranges and side of the roadway for the cut wall are set using lines drawn in a plan view dgn file.)



define variables that must be assigned values in the input data file:

"wall width"
"wall above ground"
"wall batter cut" (e.g., 50:1)
"wall width factor" (e.g., 0.75)
"haunch factor"
"minimum stem height"
"shoring width"
"shoring slope" (e.g., 10:1)

fh_walc9.x08

define_dgn variables that must be assigned values in the input data file:

None

Variables that must be defined in exceptions data file:

_d_wall_used_lt
_d_wall_used_rt

Notes for fh_walc9.x08:

1. The elevation of the base of the cut wall and the offset of the cut wall from the roadway centerline are both using the following rule: the point on the cut wall where the inside face of the wall stem intersects the top of the wall toe is set to coincide with the outside point of the bottom base course layer. (See the diagram above.)

2. fh_walc9.x08 draws additional "earthwork" lines beyond what is required to simply define the wall geometry. These additional lines allow the earthwork procedure to calculate separate quantities for structure excavation and special wall backfill.

3. fh_walc9.x08 will always draw a wall with "minimum stem height", even if the wall footing is on fill.